Biology Research Guide: Course Guides tab: BIOL203 Library Research Strategies

Finding Primary (Original research) & Secondary (Review) literature

Strategy 1: OC Library WebPage www.okanagan.bc.ca/library

Search OCtopus for Books, Media, Articles, and More!

Access Tip!
For off-campus / wireless access to OCtopus, at Hello Guest prompt enter current OC student id number and your last/family name.

Results can include OC books, e-books & media, reports, academic & scholarly journal articles, popular magazine and newspaper articles. For Biology research, it searches the EBSCOhost databases – Greenfile, Academic Search Premier plus JSTOR, Science Direct and includes content for key scientific academic journals – Nature, Science, Conservation Biology, Ecology, Journal of Applied Ecology.

Type in your terms e.g. wildlife corridor* forest fire* ecology british columbia salmon climat* change “mountain pine beetle” ecolog* ecolog* finds ecology, ecological

At the left menu column, Refine Results

1. Start with this box ticked
   Tick Resource Types
   Available from OC
   Books (includes ebooks)

2. Back at All Results
   For Journal Articles
   Tick Peer Reviewed & Scholarly

   Use date-slider to get most current results e.g. 2011 - 2016
   Refine Results by Subject to get results with best subject match e.g. corridors (ecology)

   Tip! Add to top search box (wildlife OR ecology) corridor* canada
   Refine Results by Geography to get Canadian, North American results
To limit to results in a particular group of articles, on bottom of left menu column under Databases. Click show more select specific biology database e.g. Science Direct, GreenFile or JSTOR.

3. Need better results?

Under top search boxes, click Advanced Search
Type your extra terms into other boxes

wildlife OR ecology
AND corridor*
AND wolves OR caribou
AND journal of applied ecology SO journal title/source

4. Need more results?

Under the right menu column, Expand your Search
Click a database name, especially CBCA which will open in new window, results from this Canadian source for academic articles

OR
Under left menu column, Untick the box Available from OC.
If there is no full-text for your desired result(s), click Where can I get this article? link to submit an online Interlibrary Loan request

Results Tip!
. Use Add to Folder to gather your selected results then print/email/save results set
. Stop to tick the citation format box for APA so you also get a References list along with full-text of your articles

Strategy 2: Check Library Catalogues for books, e-books, links to e-docs & research reports plus local area newspaper clippings files!

OC Library catalogue Books & Media

- Basic search within keyword
e.g. pine beetle? british columbia
ecol? finds ecology, ecological
Filter (right Action box) to limit to online sources

- Select subject links in records for more relevant items

- Check the UBC Library catalogue. Ask librarians to help you request items from UBC and/or register as a UBC library member
- Check other libraries catalogues and seek librarians help or fill up online ILL form to get Interlibrary loans from other Canadian libraries.
Strategy 3: **Search in a specific database**

- **Lib webpage > Articles & Databases > Databases by Subject > Biology**

  **Recommended for:** *Primary Research*
  
  **JSTOR** covers *PNAS* and many scholarly peer-reviewed scientific journals
  
  Focus is on back-files (over a century!) with most current, 2013.
  
  **Tips!** No subject searching feature, so search in full-text or title
  
  Check boxes for 🔄 articles 🔄 books Click Cite this Item

  **Science Direct** full-text from scientific peer-reviewed journals and e-books
  
  Click into article title to see at right, links to recommended [related] articles & citing articles; look within article pdf/html for clickable references and potential full-text

- **Lib webpage > Articles & Databases > Databases by Subject > Canadian**

  **CBCA Complete** large range of Canadian academic journals and popular magazines with Canadian focus to subjects
  
  **Tip!** If no full-text immediately present, click Get @ OC to possibly locate in another OC database and if not, fill up an online ILL form

  **Google Scholar**

  **Tip!** use this link and find what Scholar has that you can get full text through OC

  - Access articles from a wide variety of academic publishers, professional societies and universities plus scholarly articles available across the web & JSTOR.
  - Many online journal articles show as pay-per-view - don't pay!

  **Tip!** Click Settings on top menu bar then click Library Links. Type Okanagan College. Save preferences. Then at your search results list, you will have option to Click on Where can I get this at Okanagan College Library? And find it freely available at OC.

Strategy 4: **Search for primary research in a specific scientific journal**

**Multidisciplinary science journals** - the three most significant are:

*Nature; Proceedings of the National Academy of Sciences of the USA (PNAS)*

*Science*

(*Nature* and *Science* contain both primary & secondary literature)

- **Lib webpage > Articles & Databases > Find Electronic Journals by Title**

  - Search by title of journal to find database(s) to access journal full text at OC

  **Ecology** – goes to Library’s *JSTOR* database (full-text 1920-2013) - enter in key terms to find articles just in this journal

  **Nature** – for articles from 1869 to current articles-on-demand, goes to Library’s subscription to journal publisher’s website - enter in key terms to find articles, by clicking search within this publication
Strategy 5:
Find articles from Reference list of citations, or article without immediate free full-text found on Google search

Try the OCtopus engine first, type author(s) names & title words from article. If in an OC licensed database or e-journal collection, the full text may appear.

OR Lib webpage > Articles & Databases > Find Electronic Journals by title
- Search by title of journal to find database(s) to access journal full text at OC
- Find search box, either on journal website or in article database (as above), enter author(s)names & title words to find specific article

Strategy 6: Other sources : Grey literature & Web sources

Websites for Government ministries & research agencies:

**Tip!** Smart searching with Google !
- Use Advanced search
- Search within domains .ca .bc.ca

Just a few examples!

**British Columbia**
- EcoCat Ecological Reports Catalogue
- BC Conservation Data Centre [www.env.gov.bc.ca/cdc/](http://www.env.gov.bc.ca/cdc/)
- Mountain Pine Beetle in B.C. - Province of British Columbia

**Canada**
- Environment & Climate Change Canada > publications [www.ec.gc.ca/publications](http://www.ec.gc.ca/publications) look for topic areas

**APA style**

- Keep details of your sources, cite them (in-text) in your essay & list them on a References page at the end of your paper or presentation.
- Use free citation service websites Zotero, Mendeley, KnightCite
- Library WebPage > Help > Style & Citation Guides (APA, Chicago, MLA) for examples of sources cited in APA format
- OC Library’s online APA Citation tutorial
- APA Style Guide from Purdue University Online Writing Lab (OWL)

**Need help?**

- Ask librarians at the Library Research Help desk
- Research Help links to librarians by email & AskAway live chat Library WebPage
- Michelle Ward, Biology Librarian email: mward@okanagan.bc.ca
Scientific information evolves through a continuous process of communication among scientists. It develops in cycles moving from ideas, through research that tests the ideas, to publications reporting the results, first in the primary literature and later in the secondary and, if significant enough, in the tertiary literature.

<table>
<thead>
<tr>
<th>Year 1</th>
<th>IDEA</th>
<th>Formation of a hypothesis.</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>RESEARCH</td>
<td>Search of the literature to see what has been done before and testing of the hypothesis in the lab or field.</td>
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<tr>
<td></td>
<td>INVISIBLE COLLEGE</td>
<td>Informal discussion of research with colleagues via email, discussion lists, at meetings, seminars, etc.</td>
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<tr>
<td>Years 1-3</td>
<td>GREY LITERATURE</td>
<td>More formal record of research published as preprint or technical report, a personal website, or given as a paper at conference for which proceedings not published. (This type of publication is part of the primary literature, since it is an original record of research, but is called &quot;grey&quot; by librarians because harder to locate than the readily available primary literature below.)</td>
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<tr>
<td></td>
<td>PRIMARY LITERATURE</td>
<td>Detailed record of research formally published as an article in a journal or a paper in the published proceedings of a conference. Some of these are brief reports of research in progress (sometimes called &quot;communications&quot; or &quot;letters&quot;), with whole journals or a section of a journal devoted to this format. Unlike these brief reports and papers delivered at conferences, the longer research articles in scholarly journals are peer-reviewed prior to publication lending them the most authority.</td>
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<tr>
<td></td>
<td>SECONDARY LITERATURE</td>
<td>Publications summarizing and pointing to the primary literature soon after it appears. Their main purpose is to facilitate timely access to scientific information. Most significant in this category are electronic indexes or article databases, in which you search across journals to find articles of interest. Review articles published in journals or appearing in annual volumes devoted exclusively to reviews. A review is a digest of recent research in a particular subject area and, if available for your topic, an invaluable resource for background information. Add “review” as a keyword when searching article databases. Magazines &amp; Newspapers published for a broader and more popular audience; not peer-reviewed; contain research of others rather than the original reports. Books that review current literature also fall into this category.</td>
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<td></td>
<td>TERTIARY LITERATURE</td>
<td>Publications that also summarize and point to the primary literature, but generally only after it has become widely accepted and believed, such as handbooks, encyclopedias, textbooks, and popular literature-- all good sources for background information.</td>
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